Safeguarding Your Senses

An Exploration of Wellness and the Body’s Ability to Perceive its Surroundings

“Self-care is giving the world the best of you, instead of what’s left of you.”

— Katie Reed

SUMMARY OF TOPICS

MAIN POINTS COVERED

Vision

Hearing

Touch

Smell

Taste

Synesthesia

VISION

STRUCTURES OF THE EYE

- Cornea
- Iris
- Lens
- Retina
- Optic Nerve
- Aqueous and Vitreous Humor

PATHWAY OF VISION

POWER OF ACCOMMODATION

CARING FOR YOUR EYES

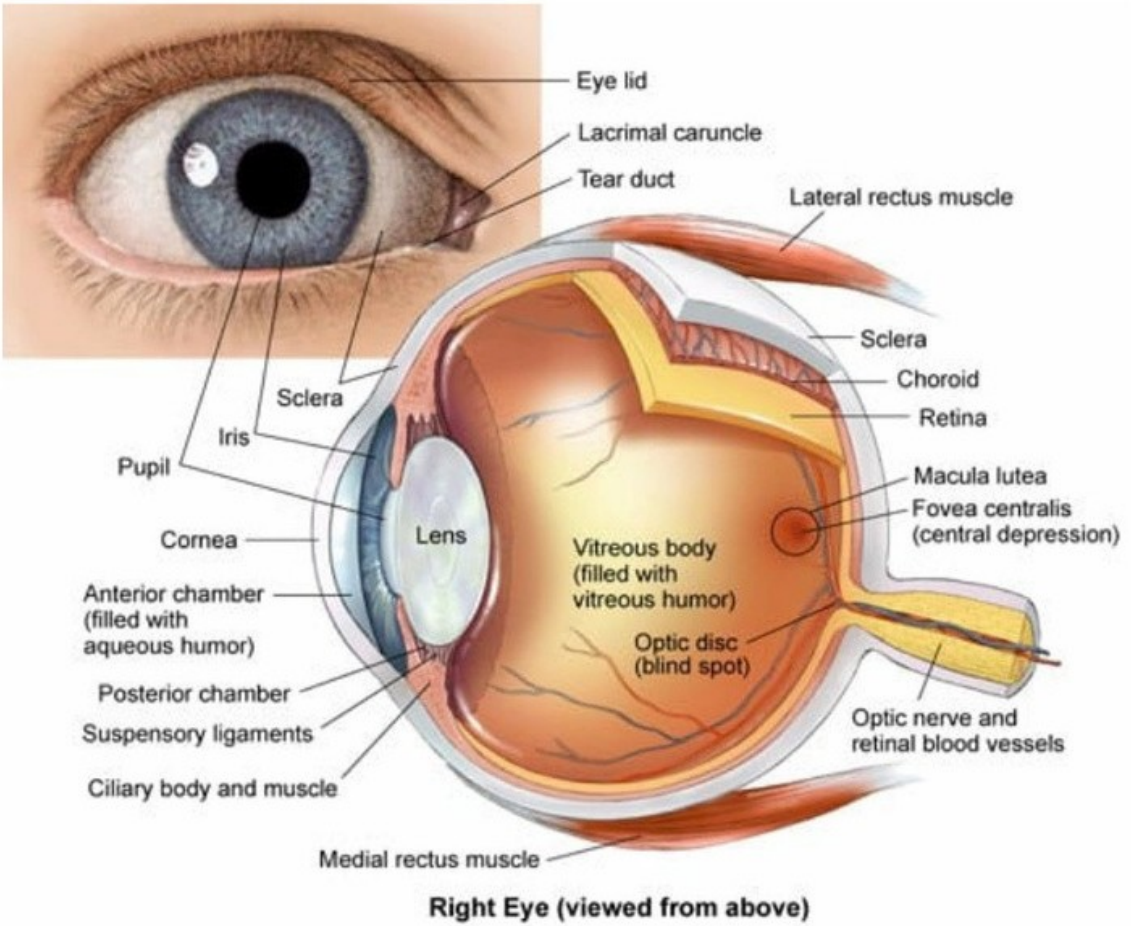
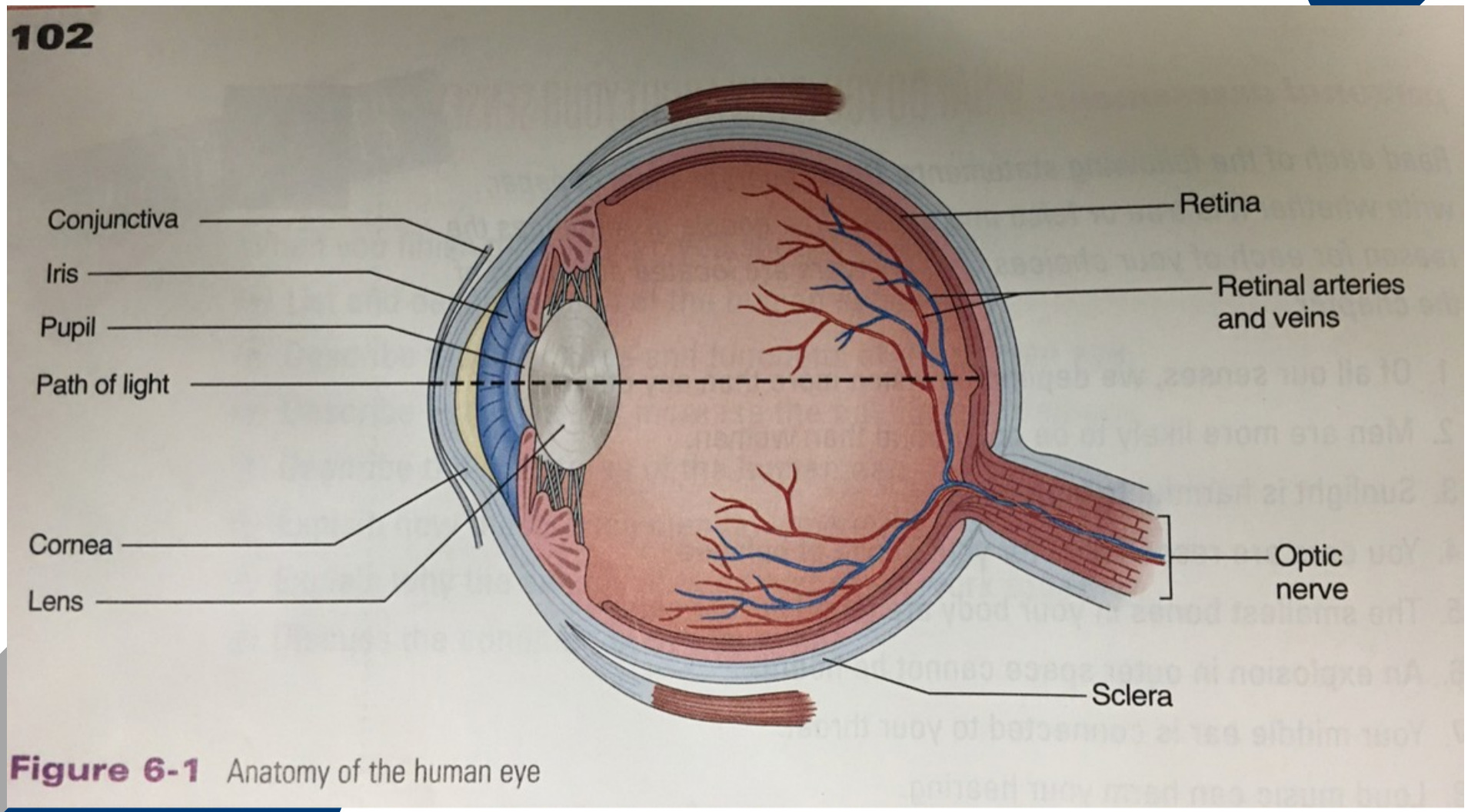


Photo Credit: https://columbiaeyeclinic.com/anatomy-eye/

EYE DIAGRAM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Conjunctiva
Iris
Pupil
Path of light
Cornea
Lens
Retina
Retinal arteries and veins
Optic nerve
Sclera
Figure 6-1 Anatomy of the human eye

HEARING

STRUCTUIRES OF THE EAR

Outer Ear: Auricle, Tympanic Membrane

Middle Ear: Malleus, Incus, Stapes, and Eustachian Tube

Inner Ear: Oval Window, Cochlea, Semicircular Canals, Round Window, Vestibulocochlear Nerve

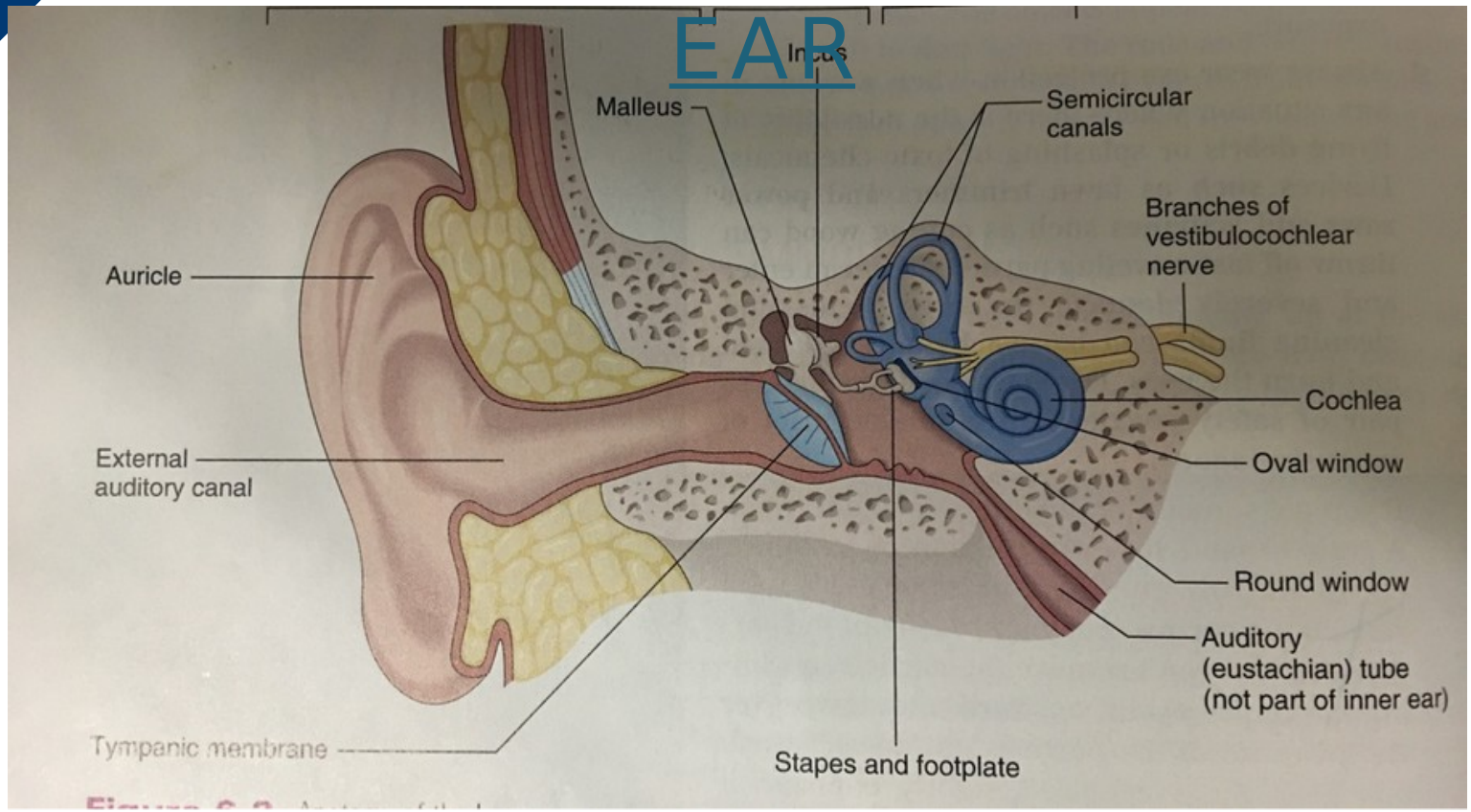
PATHWAY OF HEARING

CHARACTERISTICS OF SOUND

Frequency (dB) and Amplitude (hz)

CARING FOR YOUR EARS

STRUCTURES OF THE EAR



OUTER EAR

- Auricle
- External Auditory Canal
- Tympanic Membrane

MIDDLE EAR

- Malleus, Incus, and Stapes
- Auditory (Eustachian Tube)

INNER EAR

- Oval Window
- Cochlea
- Semicircular Canals
- Round Window
- Vestibulocochlear Nerve

DECIBEL LEVELS OF COMMON SOUNDS

Table 6-1 Decibel Levels of Common Sounds

Sound	Decibel Level	Likelihood of Damage
Whispers	40 dB	
Everyday conversation	60 dB	
Restaurant	70 dB	
Heavy city traffic, vacuum cleaner, factory noise	80 dB	
Workshop tools, lawn mower	90 dB	Damage at exposure for 8 hours per day
Jet takeoff	100 dB	Damage at exposure for 2 hours per day
Amplified rock music	110–130 dB	Damage at exposure for 10–30 minutes per day
Shotgun blast, air raid siren, military jet	130 dB	Damage at 5 minutes per day
Pistol shot	140 dB	Danger level

TOUCH

DIFFERENT TYPES OF RECEPTORS

Pressure

Vibration

Temperature

Pain

CARING FOR YOUR TOUCH SENSORS

Balanced Diet

Use protective Equipment

SMELL

RECEPTORS STIMULATED BY CHEMICALS

Olfactory area in the nasal passage detects odors

Information transferred to brain for interpretation

Closely linked to taste

Protects you from rotten food

CARING FOR YOUR OLFACTORY STRUCTURES

Balanced Diet

Avoid damaging substances

TASTE

TASTE BUDS IN TONGUE STIMULATED BY CHEMICALS

TONGUE CAN DETECT FIVE FLAVORS

Sweet

Sour

Bitter

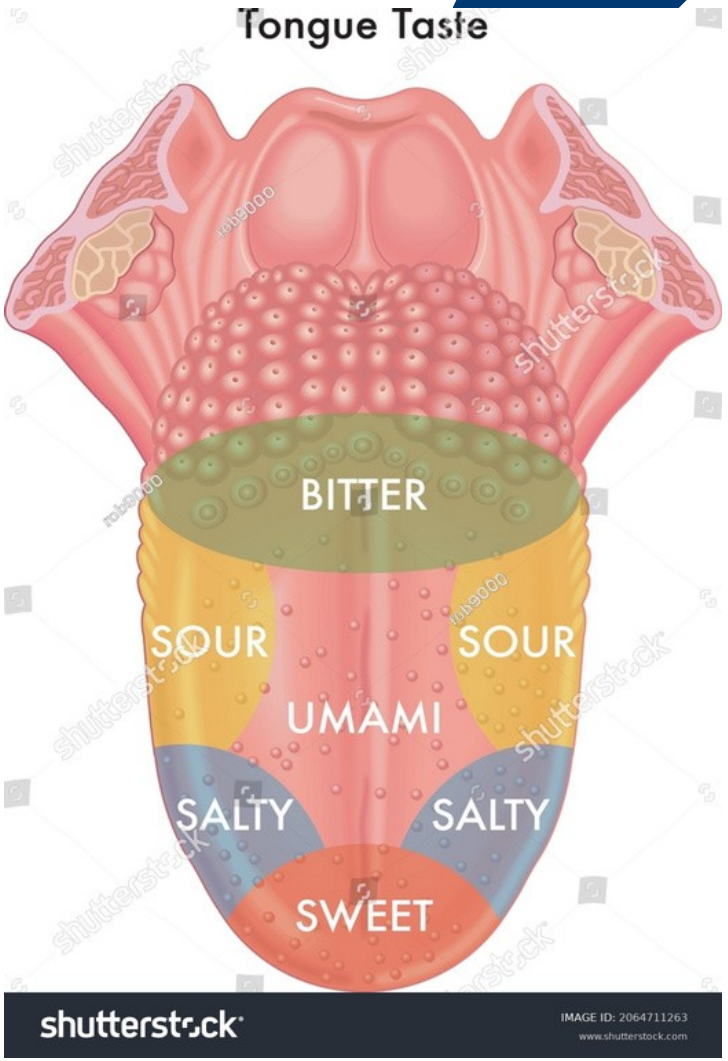
Salty

Beefy (Umami)

CARING FOR YOUR OLFACTORY STRUCTURES

Do Not

Smoke



SYNESTHESIA

- “Joined Sensation” or “Sixth Sense”
- Stimulus experienced by more than one sense

SUMMARY

Your senses add to your enjoyment of the world

Your senses protect you from danger

Important not to take your senses for granted

Take care of the structures that provide sensory contacts